UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/424,661	11/29/1999	TATSUYA MITSUGI	1163-258P	8311

7590   02/25/2003

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EXAMINER
ALI, MOHAMMAD

ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2002* .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-8* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

1. This communication is responsive to the amendment filed on December 16, 2002, Paper No. 14.

Response to Arguments

2. Claims 1-3 and 5-8 are pending in this Office Action.

After a further search and a thorough examination of the present application, claims 1-3 and 5-8 are remain rejected.

Applicant's arguments with respect to claims 1-3 and 5-8 have been considered, but they are not deemed to be persuasive.

First, Applicant argues that Paik does not teach, "search words respectively associated with the sentence element categories".

In response to Applicant's arguments, the Examiner respectfully submits that in particular, Paik teaches this limitation as, copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq).

Second, Applicant argues that Paik does not teach, "agents of action in conjunction".

In response to Applicant's arguments, the Examiner respectfully submits that in particular, Paik teaches this limitation as, the subject concept is the cause on an action happening, or it may be the recipient of the effects of an action or event. These are different relations which distinguish how the same two concepts. For instance, the two sentences, "Fred raised taxes," and "Fred's taxes were raised" both deal with the same concepts, but the relations between them are entirely different. Fred is the agent of the action "raised" in the first sentence, while Fred is the recipient of the action "raising taxes" in the second sentence (col. 13, lines 46-55 et seq).

Third, Applicant argues that Paik does not teach, "filtering for attribute relation based on the grammatical structure of the natural language is performed".

In response to Applicant's arguments, the Examiner respectfully submits that in particular, Paik

teaches this limitation as, filtering the set of retrieved CRCs according to user input. The frequency and/or

recency of a CRC is used to filter or limit the number of documents reported (col. 32, lines 50-54 et seq).

Fourth, Applicant argues that DeLorme does not teach, "destination of object travel data".

In response to Applicant's arguments, the Examiner respectfully submits that in particular, DeLorme

teaches this limitation as, Computerized travel reservation information and planning system that

generates "map ticket" output in various media, for guidance and transactions en route. Such print or

electronic documents can include bar or alphanumeric codes for automated recognition and/or access.

WHERE?, WHO/WHAT?, WHEN? and HOW? menus enable flexible user inquiries accessing selectable

geographic, topical, temporal and transactional data records and relational processing. Sub-menus

provide further capabilities: e.g. routing, topical searching; searches of events calendars, almanacs,

appointment books, related itinerary scheduling; trip budgeting issues, plus travel arrangement

availabilities or other goods/services offers (Abstract, lines 1-13 et seq).

In response to applicant's argument, the Examiner respectfully submits that the Prima facie case

of obviousness was properly established on the cited references because the combination of the

references teach the limitations of the claimed invention.

In light of the forgoing arguments, the 102, 103 rejections are hereby sustained.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

4.   Claims 1, 2, 6, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent

6,076,088 issued to Paik et al. ("Paik").

As to claim 1, Paik discloses, an object data search apparatus (col. 6, lines 44-46). Paik teaches, 'a database for storing object data in association with plurality of attribute words categorized according to sentence elements of natural language' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Further Paik teaches, 'an input unit for receiving an input search of a search criterion in the form of a sentence natural language' as an information extraction systems that allows users (input) to ask questions about documents in a database, and responds to queries by returning possibly relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq). Paik teaches, 'a criterion retrieval unit for analyzing the search criterion in the form of the sentence and retrieving on or more plurality of search words respectively corresponding sentence elements categories of the natural language' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Paik teaches, 'an object retrieval unit for searching the database using each of the search words respectively associated with the sentence element categories, and retrieving the object data associated with the attribute words that match a single search word or a plurality of search words wherein filtering for attribute relation based on the grammatical structure of the natural language is performed' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in

grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et seq). Finally, Paik teaches, 'an output apparatus for outputting the object data thus retrieved' as an information extraction systems that allows users (input) to ask questions about documents in a database, and responds (output) to queries by returning possibly relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq).

As to claim 2, Paik teaches 'database stores destination data at least associated with an attribute word having agent of action category, an attribute word having an action category and an attribute word having the object of action category' as the subject concept is the cause on an action happening, or it may be the recipient of the effects of an action or event. These are different relations which distinguish how the same two concepts. For instance, the two sentences, "Fred raised taxes," and "Fred's taxes were raised" both deal with the same concepts, but the relations between them are entirely different. Fred is the agent of the action "raised" in the first sentence, while Fred is the recipient of the action "raising taxes" in the second sentence (col. 13, lines 46-55 et seq).

As per claim 6, Paik teaches, 'plurality of tuples retrieved in a search are filtered so that overlapping tuples are filtered off and filtering for attribute relations based on the grammatical structure of the natural language is performed' as filtering the set of retrieved CRCs according to user input. The frequency and/or recency of a CRC is used to filter or limit the number of documents reported (col. 32, lines 50-54 et seq).

As to claim 8, Paik discloses, a method of searching object data (col. 6, lines 44-46). Paik teaches the claimed step of 'a database for storing object data in association with plurality of attribute words categorized according to sentence elements of natural language' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14,

lines 33-63 et seq). Further, Paik teaches the claimed step of 'an inputting a search criterion in the form of a sentence natural language' as an information extraction systems that allows users (input) to ask questions about documents in a database, and responds to queries by returning possibly relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq). Paik teaches the claimed step of 'analyzing the search criterion in the form of the sentence and retrieving on or more plurality of search words respectively corresponding sentence elements categories of the natural language' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63 et seq). Paik teaches the claimed step of 'searching the database using each of the search words respectively associated with the sentence element categories, and retrieving the object data associated with the attribute words that match a single search word or a plurality of search words wherein filtering for attribute relation based on the grammatical structure of the natural language is performed' as copula sentences whose subject is a proper name. If an apposition belongs to the apposition proper category, then there is at least one noun phrase in the apposition that refers to the same entity to which the proper name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et seq). Finally, Paik teaches the claimed step of 'outputting the object data thus retrieved' as an information extraction systems that allows users (input) to ask questions about documents in a database, and responds (output) to queries by returning possibly relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> " A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person."

> If this application currently names joint inventors, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary in considering patentability of the claims under 35 U.S.C. § 103. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

6.   Claims 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent

6,076,088 issued to Paik et al. ("Paik") in view of US Patent 5,948,040 issued to DeLorme et al.

("DeLorme")

As to claim 3, Paik Substantially discloses the claimed invention including, a method of searching

object data (col. 6, lines 44-46). Paik teaches the claimed step of 'retrieving one or plurality or search

words from a search criterion input in the form of a sentence of a natural language,...' as copula

sentences whose subject is a proper name. If an apposition belongs to the apposition proper category,

then there is at least one noun phrase in the apposition that refers to the same entity to which the proper

name, which precedes or follows the apposition refers. For example, the sentence "Mr. Tessitor . . .

Milwaukee." has a copula form: in grammatical logic, a copula is a word or set of words (in this case, "is

an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and

predicate (col. 14, lines 33-63 et seq). Further, Paik teaches the claimed step of 'conduction a search

relative to a plurality of sentence element categories associated with a single search word or a plurality of

search words' as copula sentences whose subject is a proper name. If an apposition belongs to the

apposition proper category, then there is at least one noun phrase in the apposition that refers to the

same entity to which the proper name, which precedes or follows the apposition refers. For example, the

sentence "Mr. Tessitor . . . Milwaukee." has a copula form: in grammatical logic, a copula is a word or set

of words (in this case, "is an") that act as connecting links (associated) between subject (the proper named Mr. Tessitor) and predicate (col. 14, lines 33-63, col. 22 lines 14-44, col. 32, lines 5-54 et seq). Paik teaches the claimed step of 'retrieving object data associated with the attribute word that matches a single search word,...' as an information extraction systems that allows users (input) to ask questions about documents in a database, and responds (output) to queries by returning possibly relevant information which is extracted from the documents (col. 3 lines 37-41, col. 4, lines 60-61 et seq). Finally, Paik teaches the claimed step of 'using at least a search word having an agent of action category, a search word having an action category and search word having an object category' as the subject concept is the cause on an action happening, or it may be the recipient of the effects of an action or event. These are different relations which distinguish how the same two concepts. For instance, the two sentences, "Fred raised taxes," and "Fred's taxes were raised" both deal with the same concepts, but the relations between them are entirely different. Fred is the agent of the action "raised" in the first sentence, while Fred is the recipient of the action "raising taxes" in the second sentence (col. 13, lines 46- 55 et seq). Paik does not teach destination of travel data, as described in the present invention. However, DeLoreme teaches an analogous method wherein the Computerized travel reservation information and planning system that generates "map ticket" output in various media, for guidance and transactions en route (Abstract, lines 1-5 et seq). It would have been obvious to one ordinarily skilled in the art of object data processing, at the time of the present invention, to combine the teachings of the cited references because the travel destination of DeLorme's method would have provided Paik's with the necessary infrastructure, which would allow the travel destination to process their respective tasks ,as explained in DeLorme, (Astract, lines 1-5 et seq).

As to claim 5, Paik discloses 'a computer readable-medium recording medium storing data according to a relational database structure,...' as the subject concept is the cause on an action happening, or it may be the recipient of the effects of an action or event. These are different relations which distinguish how the same two concepts. For instance, the two sentences, "Fred raised taxes," and "Fred's taxes were raised" both deal with the same concepts, but the relations between them are entirely different. Fred is the agent of the action "raised" in the first sentence, while Fred is the recipient of the

action "raising taxes" in the second sentence (col. 13, lines 46-55, col. 32, lines 50-54 et seq). Paik does

not teach destination of travel data, as described in the present invention. However, DeLoreme teaches

an analogous method wherein the Computerized travel reservation information and planning system that

generates "map ticket" output in various media, for guidance and transactions en route (Abstract, lines 1-

5 et seq). It would have been obvious to one ordinarily skilled in the art of object data processing, at the

time of the present invention, to combine the teachings of the cited references because the travel

destination of DeLorme's method would have provided Paik's with the necessary infrastructure, which

would allow the travel destination to process their respective tasks ,as explained in DeLorme, (Astract,

lines 1-5 et seq).

As per claim 7, Paik teaches, 'plurality of tuples retrieved in a search are filtered so that

overlapping tuples are filtered off and filtering for attribute relations based on the grammatical structure of

the natural language is performed' as filtering the set of retrieved CRCs according to user input. The

frequency and/or recency of a CRC is used to filter or limit the number of documents reported (col. 32,

lines 50-54 et seq).Paik does not teach destination of travel data, as described in the present invention.

However, DeLoreme teaches an analogous method wherein the Computerized travel reservation

information and planning system that generates "map ticket" output in various media, for guidance and

transactions en route (Abstract, lines 1-5 et seq). It would have been obvious to one ordinarily skilled in

the art of object data processing, at the time of the present invention, to combine the teachings of the

cited references because the travel destination of DeLorme's method would have provided Paik's with the

necessary infrastructure, which would allow the travel destination to process their respective tasks ,as

explained in DeLorme, (Astract, lines 1-5 et seq).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth

in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS

from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of

this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension

fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final

action.

Contact Information

8.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Mohammad Ali whose telephone number is (703) 605-4356. The examiner can normally

be reached on Monday to Thursday from 7:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John

Breene can be reached on (703) 305-9790. The fax phone numbers for the organization where this

application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238

for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed

to the receptionist whose telephone number is (703) 305-9600.

Mohammad Ali

Patent Examiner

February 20, 2003